



Central Valley Regional Water Quality Control Board

20 July 2018

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**NOTICE OF APPLICABILITY (NOA); LIMITED THREAT GENERAL WASTE DISCHARGE REQUIREMENTS ORDER R5-2016-0076-01; COUNTY OF SACRAMENTO DEPARTMENT OF WASTE MANAGEMENT AND RECYCLING, KIEFER LANDFILL GROUNDWATER EXTRACTION AND TREATMENT PLANT, SACRAMENTO COUNTY**

Our office received a Report of Waste Discharge (ROWD) application on 11 July 2017 from the County of Sacramento Department of Waste Management and Recycling (Discharger), for discharge of treated groundwater to surface water at its Kiefer Landfill Groundwater Extraction and Treatment Plant (Facility). Based on the ROWD and subsequent information submitted by the Discharger, the Facility meets the required conditions for approval under the General Order for Limited Threat Discharges to Surface Water (Limited Threat General Order), as a Tier 2 discharge. This project is hereby assigned Limited Threat General Order R5-2016-0076-033 and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG995002. Please reference your Limited Threat General Order number, **R5-2016-0076-033**, in your correspondence and submitted documents.

Discharges to surface water from the Facility are currently regulated by an individual NPDES permit, Order R5-2013-0002 (NPDES No. CA0083681), issued by the Central Valley Regional Water Quality Control Board (Central Valley Water Board) on 31 January 2013 and administratively extended on 11 July 2017 in accordance with California Code of Regulations, Title 23, Section 2235.4 after the timely and complete submission of the ROWD. This NOA, authorizing coverage under the Limited Threat General Order, shall become effective on **1 August 2018**, at which time the terms and conditions in Order R5-2013-0002 will cease to be effective except for enforcement purposes. To meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements contained in the Limited Threat General Order and as specified in this NOA. This action in no way prevents the Central Valley Water Board from taking enforcement action for past violations of Order R5-2013-0002.

The project activities shall be operated in accordance with the requirements contained in the Limited Threat General Order and as specified in this NOA. You are urged to familiarize yourself with the entire contents of the enclosed Limited Threat General Order. The Limited Threat General Order may also be viewed at the following web address:

<https://www.waterboards.ca.gov/centralvalley/board/decisions/adopted/orders/general/orders/r5-2016-0076-01.pdf>.

KARL E. LONGLEY SCD, P.E., CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

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## PROJECT DESCRIPTION

The Discharger is the owner and operator of the Facility, a groundwater extraction and treatment system that is addressing impacts emanating from the releases of Volatile Organic Compounds (VOCs) caused by previous disposal operations at Kiefer Landfill. VOCs of concern include the following:

- Vinyl chloride,
- Tetrachloroethene (PCE),
- Trichloroethene (TCE),
- Trans-1,2-dichloroethene (trans-1,2-DCE),
- 1,1-dichloroethane (1,1-DCA),
- Dichlorodifluoromethane,
- Trichlorofluoromethane,
- Methylene chloride,
- Chloroform, and
- Cis-1,2-dichloroethylene (cis-1,2-DCE).

The Facility has been in operation since 1995, with discharges to surface water regulated by an individual NPDES permit. The Facility is fed by a groundwater extraction well network consisting of 15 extraction wells and delivered to two air stripping towers for the removal of VOCs from groundwater. Treated groundwater is discharged to Deer Creek, a water of the United States tributary to the Cosumnes River. During maintenance operations, groundwater is discharged to an on-site storm water sedimentation basin (Attachment A), where this discharge to land is regulated under separate Waste Discharge Requirements Order R5-2016-0013. The design flow rate of the Facility is 2.17 million gallons per day (MGD) and the observed annual average daily flow rate between March 2013 and January 2017 was 0.4 MGD. The Facility is operated 24 hours per day, 7 days per week except when it is necessary to shut the system down for maintenance.

## CALIFORNIA TOXICS RULE / STATE IMPLEMENTATION POLICY MONITORING

The Limited Threat General Order incorporates the requirements of the California Toxics Rule (CTR) and the State Water Resources Control Board's, *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California, 2005*, also known as the State Implementation Policy. Screening levels for CTR constituents are found in Attachment I of the Limited Threat General Order. Review of your water quality data in comparison to the screening values, showed no reasonable potential for the discharge to cause or contribute to an exceedance of constituent(s) water quality objectives in Deer Creek, which is a water of the United States. However, the existing treatment system is designed to reduce target constituent concentrations below water quality objectives, therefore, this NOA includes effluent limitations for these target constituents.

## EFFLUENT LIMITATIONS

Effluent limitations are specified in Section V, Effluent Limitations and Discharge Specifications of the Limited Threat General Order. Based on the information provided in your ROWD, only effluent limitations for flow, pH, chronic toxicity, acute toxicity, vinyl chloride, PCE, TCE, trans-1,2-DCE, 1,1-DCA, dichlorodifluoromethane, trichlorofluoromethane, methylene chloride, chloroform, and cis-1,2-DCE, as specified in Section V.A.1.a, V.A.1.b.i, V.A.2.a, V.A.3.a, and V.B.2 of the Limited Threat General Order, are applicable to this discharge. The applicable effluent limitations are shown below:

1. **Flow (Section V.A.1.a).** The flow rate shall not exceed 2.17 MGD.

2. **pH (Section V.A.1.b.i).** The pH of all limited threat discharges within the Sacramento and San Joaquin River Basins (except Goose Creek) shall at all times be within the range of 6.5 and 8.5.
3. **Whole Effluent Toxicity, Chronic (Section V.A.2.a).** There shall be no chronic toxicity in the discharge.
4. **Whole Effluent Toxicity, Acute (Section V.A.3.a).** Survival of aquatic organisms in 96-hour bioassays of undiluted waste for all limited threat discharges shall be no less than:
  - i. 70%, minimum for any one bioassay; and
  - ii. 90%, median for any three consecutive bioassays.
5. **Volatile Organic Compounds (VOC's) Applicable to Remediation Sites (Section V.B.2).**  
The discharge of treated wastewater from site investigations and/or cleanup of sites contaminated with volatile organic compounds shall not exceed the effluent limitations in Table 1, below.

**Table 1. VOC Effluent Limitations for Remediation Projects**

Parameter	Units	Maximum Daily Effluent Limitations
1,1-Dichloroethane	µg/L	0.5
Chloroform	µg/L	0.5
Cis-1,2-dichloroethene	µg/L	0.5
Dichlorodifluoromethane	µg/L	0.5
Methylene chloride	µg/L	0.5
Tetrachloroethylene	µg/L	0.5
Trans-1,2-dichloroethene	µg/L	0.5
Trichloroethylene	µg/L	0.5
Trichlorofluoromethane	µg/L	0.5
Vinyl Chloride	µg/L	0.5

Deer Creek is listed for iron on the CWA 303(d) List of impaired water bodies. A Total Maximum Daily Load (TMDL) has not yet been established for Deer Creek but groundwater remediation related discharges are not listed as a source of iron. Therefore, no additional 303(d) based effluent limitations or monitoring requirements are included in this NOA.

#### RECEIVING WATER LIMITATIONS

The Limited Threat General Order includes receiving surface water limitations in Section VIII.A. Based on the information provided in the NOI, only the following receiving surface water limitations are applicable to this discharge:

- Bacteria (VIII.A.2);
- Biostimulatory substances (VIII.A.3);
- Chemical constituents (VIII.A.4);
- Color (VIII.A.5);
- Dissolved oxygen (VIII.A.6.b.iv);
- Floating material (VIII.A.7);
- Oil and grease (VIII.A.8);
- pH (VIII.A.9.a);
- Pesticides (VIII.A.10);

- Radioactivity (VIII.A.11);
- Suspended sediments (VIII.A.12);
- Settleable substances (VIII.A.13);
- Suspended material (VIII.A.14);
- Taste and odors (VIII.A.15);
- Temperature (VIII.A.16.c) for Discharges to Deer Creek, source to the Cosumnes River;
- Toxicity (VIII.A.17); and
- Turbidity (VIII.A.18.a).

### MONITORING AND REPORTING REQUIREMENTS

Monitoring and reporting requirements are contained in Attachment C of the Limited Threat General Order. The Discharger is required to comply with the following specific monitoring and reporting requirements for the effluent and receiving water in accordance with Attachment C of the Limited Threat General Order.

- A. Monitoring Locations** – The Discharger shall monitor the effluent and receiving water at the specified locations as follows:

**Table 2. Monitoring Station Locations**

Discharge Point Name	Monitoring Location Name	Monitoring Location Description
001	EFF-001	A location where a representative sample of the effluent can be collected prior to discharging to Deer Creek. (38° 30' 12" N, 121° 10' 25" W)
--	RSW-001	700 feet upstream of the point of discharge to Deer Creek. (38° 30' 16" N, 121° 10' 32" W)
--	RSW-002	400 feet downstream of the point of discharge to Deer Creek. (38° 30' 18" N, 121° 10' 44" W)

- B. Effluent Monitoring** – When discharging to Deer Creek, the Discharger shall monitor the effluent at EFF-001 as follows:

**Table 3. EFF-001 Effluent Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Method
Volume, Total	MGD	Meter	1/Day	1
Dissolved Oxygen	mg/L	Grab	1/Month	1, 2
Hardness, Total (as CaCO <sub>3</sub> )	mg/L	Grab	1/Month	1, 2
pH	standard units	Grab	1/Month	1, 2
Temperature	°F	Grab	1/Month	1, 2
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Month	1, 2
Turbidity	NTU	Grab	1/Month	1, 2
VOCs of Concern	µg/L	Grab	1/Month	2, 3, 4
Manganese, Total Recoverable	µg/L	Grab	1/Month	2
Acute Toxicity	% survival	Grab	1/Year	5

- 1 A hand-held field meter may be used, provided the meter utilizes a USEPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.
- 2 Pollutants shall be analyzed using the analytical methods described in 40 Code of Federal Regulations (C.F.R.) part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
- 3 For priority pollutant constituents the reporting level shall be consistent with Sections 2.4.2 and 2.4.3 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California
- 4 VOCs include vinyl chloride, tetrachloroethylene, trichloroethylene, trans-1,2-dichloroethylene, 1,1-dichloroethane, dichlorodifluoromethane, trichlorofluoromethane, methylene chloride, chloroform, and cis-1,2-dichloroethylene.
- 5 See the MRP (Limited Threat General Order Attachment C, section V) for toxicity monitoring requirements. For acute toxicity testing, the test species shall be fathead minnows (*Pimephales promelas*).

Section II.B.2 of the Limitations and Discharge Requirements section of the Limited Threat General Order requires that dischargers submit new analytical results every 5 years for pollutants specified in Table I-1 of Attachment I. The Project is considered a Tier 2 discharge. Therefore, the Discharger shall submit monitoring results by **31 December 2022** for the following constituents shown in Table 4, below:

**Table 4. Effluent Characterization Monitoring**

Parameter <sup>1,4</sup>	Units	Sample Type	Required Analytical Test Method
Biochemical Oxygen Demand (BOD)	mg/L	Grab	2
Total Suspended Solids (TSS)	mg/L	Grab	2
Dissolved Oxygen (DO)	mg/L	Grab	1, 2
Hardness	mg/l	Grab	1, 2
pH	standard units	Grab	1, 2
Temperature	°F	Grab	1, 2
Electrical Conductivity @ 25 °C	µmhos/cm	Grab	1, 2
Total Dissolved Solids (TDS)	mg/L	Grab	1, 2
Turbidity	NTU	Grab	1, 2
Chronic Toxicity	TUc	Grab	3
CTR Priority Pollutants <sup>4</sup>	µg/L	Grab	2

1. A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained at the Facility.
2. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.
3. See the MRP (Limited Threat General Order, Attachment C, section V) for toxicity monitoring requirements. Species sensitivity screening for chronic toxicity shall include, at a minimum, chronic WET testing using the water flea (*Ceriodaphnia dubia*), fathead minnow (*Pimephales promelas*), and green alga (*Pseudokirchneriella subcapitata*). The tests shall be performed using 100 percent effluent and one control.
4. See Attachment I, Table I-3 of the Limited Threat General Order.

- C. Receiving Water Monitoring** - When discharging to Deer Creek, the Discharger shall monitor the receiving water at RSW-001 and RSW-002 as follows:

**Table 5. RSW-001 and RSW-002 Receiving Water Monitoring Requirements**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
pH	pH units	Grab	1/Month	1, 2
Dissolved Oxygen	mg/L	Grab	1/Month	1, 2
Electrical Conductivity @ 25°C	µmhos/cm	Grab	1/Month	1, 2
Hardness, Total (as CaCO <sub>3</sub> )	mg/L	Grab	1/Month	1
Temperature	°F	Grab	1/Month	1, 2
Turbidity	NTU	Grab	1/Month	1, 2

<sup>1</sup> Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136 or by methods approved by the Central Valley Water Board or the State Water Board.

<sup>2</sup> A hand-held field meter may be used, provided the meter utilizes a U.S. EPA-approved algorithm/method and is calibrated and maintained in accordance with the manufacturer's instructions. A calibration and maintenance log for each meter used for monitoring required by this Monitoring and Reporting Program shall be maintained by the Discharger.

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by RSW-001 and RSW-002. Attention shall be given to the presence or absence of the following items:

- a. Floating or suspended matter
- b. Discoloration
- c. Bottom deposits
- d. Aquatic life
- e. Visible films, sheens, or coatings
- f. Fungi, slimes, or objectionable growths
- g. Potential nuisance conditions

Notes on receiving water conditions shall be summarized in the monitoring report.

- D. Monitoring Report Submittals** - Monitoring in accordance with the Limited Threat General Order shall begin upon initiation of discharge. Monitoring reports shall be submitted to the Central Valley Water Board on a quarterly basis, beginning with the **Third Quarter 2018**. This report shall be submitted on **1 November 2018**. If monitoring samples were not obtained within 24 hours<sup>1</sup> of initiation of the discharge, the Discharger must document the reasons in the corresponding monitoring report. If the discharge has not begun there is no need to monitor. However, a monitoring report must be submitted stating that there has been no discharge. Table 6, below, summarizes the monitoring report due dates required under the Limited Threat General Order. Quarterly monitoring reports must be submitted until your coverage is formally terminated in accordance with the Limited Threat General Order, even if there is no discharge during the reporting quarter.

<sup>1</sup> The Facility is a continuously operated groundwater extraction and treatment system that is occasionally bypassed for routine maintenance, where the discharge is redirected to the sedimentation basin. Once treatment is resumed following maintenance activities, the discharger will not be required to perform supplemental effluent sampling in addition to the specifications on Table 3 above,

**Table 6. Monitoring Periods and Reporting Schedule**

Sampling Frequency	Monitoring Period Begins On...	Quarterly Report Due Date
1/Day, 1/Week, 1/Month, 1/Quarter	1 August 2018	1 May (1 Jan – 31 Mar) 1 Aug (1 Apr – 30 Jun) 1 Nov (1 Jul – 30 Sep) 1 Feb, of following year (1 Oct – 31 Dec)

The Discharger shall electronically submit Self-Monitoring Reports (SMRs), technical reports, progress reports, and other file documents required by Limited Threat General Order R5-2016-0076-033 and National Pollutant Discharge Elimination System (NPDES) Permit No. CAG995002 via the CIWQS' *Technical Report Submittal Process* (CIWQS' *Technical Report Submittal*) using the State Water Board's California Integrated Water Quality System (CIWQS) Program website [http://www.waterboards.ca.gov/water\\_issues/programs/ciwqs/](http://www.waterboards.ca.gov/water_issues/programs/ciwqs/). In general, if any monitoring data for a monitoring location can be submitted using a CDF file upload, then it should be submitted as a CDF file upload, such as characterization monitoring data. However, certain parameters that cannot be uploaded to the CIWQS data tables, such as *Annual Operations Reports*, should be uploaded as a PDF, Microsoft Word, or Microsoft Excel file attachment. Also, please upload a cover letter summarizing the content of the report to the submittal tab of the CIWQS module for each submittal. The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

## GENERAL INFORMATION AND REQUIREMENTS

The Discharger must notify Central Valley Water Board staff within 24 hours of having knowledge of 1) the start of each new discharge, 2) noncompliance, and 3) when the discharge ceases<sup>2</sup>. The Central Valley Water Board shall be notified immediately if any effluent limit violation is observed during implementation of the project.

Discharge of material other than what is described in the application is prohibited. The required annual fee (as specified in the annual invoice you will receive from the State Water Resources Control Board) shall be submitted until this NOA is officially terminated. You must notify this office in writing when the discharge regulated by the Limited Threat General Order is no longer necessary by submitting the Request for Termination of Coverage (Limited Threat General Order, Attachment E). If a timely written request is not received, the Discharger will be required to pay additional annual fees as determined by the State Water Resources Control Board.

## ENFORCEMENT

Failure to comply with the Limited Threat General Order may result in enforcement actions, which could include civil liability. Effluent limitation violations are subject to a Mandatory Minimum Penalty (MMP) of \$3,000 per violation. In addition, late monitoring reports may be subject to MMPs or discretionary penalties of up to \$1,000 per day late. When discharges do not occur during a quarterly monitoring period, the Discharger must still submit a quarterly certified Monitoring Report indicating that no discharge occurred to avoid being subject to enforcement actions.

<sup>2</sup> The Facility is a continuously operated groundwater extraction and treatment system that is occasionally bypassed for routine maintenance, where the discharge is redirected to the sedimentation basin. This 24-hour notification requirement is not applicable to the resumption of treatment following routine maintenance.

## COMMUNICATION

The Central Valley Water Board is implementing a Paperless Office system to reduce our paper use, increase efficiency, and provide a more effective way for our staff, the public, and interested parties to view documents in electronic form. Therefore, the Discharger is required to submit all self-monitoring, technical, and progress reports required by this NOA via California Integrated Water Quality System (CIWQS) submittal. In general, if any monitoring data for a monitoring location can be submitted using a computable document format (CDF) file upload, then it should be submitted as a CDF file upload, such as characterization monitoring data. However, certain parameters that cannot be uploaded to the CIWQS data tables should be uploaded as a Portable Document Format (PDF), Microsoft Word, or Microsoft Excel file attachment. Also, please upload a cover letter summarizing the content of the report to the submittal tab of the CIWQS module for each submittal.

All other documents not required to be submitted via CIWQS shall be converted to a searchable PDF and submitted by email to [centralvalleysacramento@waterboards.ca.gov](mailto:centralvalleysacramento@waterboards.ca.gov). Please include the following information in the body of the email: Attention: NPDES Compliance and Enforcement; County of Sacramento Department of Waste Management and Recycling, Kiefer Landfill Groundwater Extraction and Treatment Plant; CIWQS place ID 234980. Documents that are 50 MB or larger must be transferred to a CD, DVD, or flash drive and mailed to our office, attention "ECM Mailroom".

Now that your NOA has been issued, the Central Valley Water Board's Compliance and Enforcement section will take over management of your case. Ms. Ayda Soltani is your point of contact for any questions about your NOA that provides coverage under the Limited Threat General Order. If you find it necessary to make a change to your permitted operations you will be directed to the appropriate Permitting staff. Ms. Soltani can be reached at (916) 464-4634 or [Ayda.Soltani@Waterboards.ca.gov](mailto:Ayda.Soltani@Waterboards.ca.gov).

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 pm, 30 days after the date of this NOA, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 pm. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: [http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](http://www.waterboards.ca.gov/public_notices/petitions/water_quality) or will be provided upon request.

  
Patrick Pulupa  
Executive Officer

Enclosures: Attachment A – Project Location Map  
Attachment B – Rationale for Effluent Limitations and Monitoring  
Attachment C – General Order R5-2016-0076-01 (Discharger Only)

cc: David Smith, U.S. EPA, Region IX, San Francisco (email only)  
Afrooz Farsimadan, Division of Water Quality, State Water Board, Sacramento (email only)